

a'
cont.

(b) $(AB)_m$ wherein A is Lysine or Arginine and B is a hydrophobic amino acid selected from the group consisting of Valine, Leucine, Isoleucine, Tyrosine, Phenylalanine and Tryptophan; m is an integer with a minimum value of 3; and
(c) $(ABC)_p$ wherein A is a cationic amino acid which is Lysine or Arginine; B and C are hydrophobic amino acids which may be the same or different and are selected from the group consisting of Valine, Leucine, Isoleucine, Tyrosine, Phenylalanine and Tryptophan; p is an integer with a minimum value of 2.

2. (amended) A vaccine as defined in claim 1 wherein the peptide is a linear or cyclic peptides [having] comprising units of the formula:

(a) $(A)_n$ wherein A is Lysine or Arginine and n is an integer with a value of 7 to 16;

(b) $(AB)_m$ wherein A is Lysine or Arginine and B is a hydrophobic amino acid selected from the group consisting of Valine, Leucine, Isoleucine, Tyrosine, Phenylalanine and Tryptophan; m is an integer with a value of 4 to 20; and

(c) $(ABC)_p$ wherein A is a cationic amino acid which is Lysine or Arginine; B and C are hydrophobic amino acids which may be the same or different and are selected from the group consisting of Valine, Leucine, Isoleucine, Tyrosine, Phenylalanine and Tryptophan; p is an integer with a value of 4 to 20.

a² Sub B²
9. (amended) A vaccine as defined in claim 1 wherein the peptide is of the formula:

$[(\text{Lys-Glu})_4] (\text{Lys-Asp})_5$. (SEQ ID NO: 4)

a³ Sub B³
30. (amended) A vaccine as defined in claim 1 wherein the peptide is of the formula:

$[\text{Lys-Asp-Leu-Lys-Arg-Ile-Lys-Ile}]$ (SEQ ID No: 25)

$[\text{Lys-Glu-Leu-Lys-Arg-Ile-Lys-Ile}]$ (SEQ ID No: 25)

a⁴ Sub B⁴
34. (amended) A vaccine as defined in claim 1 wherein the peptide is of the formula:

Q4
cont.

[Cys-Gln-Trp-Lys-Ser-Ser-Asp-Ile-Arg-Cys-Gly-Lys
S-----S SEQ ID No:29]

Cys-Gln-Ser-Trp-Lys-Ser-Ser-Glu-Ile-Arg-Cys-Gly-Lys
S-----S SEQ ID NO:29

45. (amended) A vaccine as defined in claim 1 wherein the peptide is of the formula:

[Lys-Phe-Phe-Lys-Phe-Phe-Lys-Phe-Cys SEQ ID No:40]

Lys-Phe-Phe-Lys-Phe-Phe-Lys-Phe-Phe (SEQ ID No: 40)

Kindly add the following claim:

--54. A vaccine for preventing gram negative infections and the effects of endotoxins which comprises a complex obtained by combining LPS free or in conjugate form with a stoichiometric excess of peptide:LPS where there is an excess of from 250 to 2500 times by weight of peptide, said peptide comprising:

(a) $(A)_n$ wherein A is Lysine or Arginine and n is an integer with a minimum value of 7;

(b) $(AB)_m$ wherein A is Lysine or Arginine and B is a hydrophobic amino acid selected from the group consisting of Valine, Leucine, Isoleucine, Tyrosine, Phenylalanine and Tryptophan; m is an integer with a minimum value of 3; and

(c) $(ABC)_p$ wherein A is a cationic amino acid which is Lysine or Arginine; B and C are hydrophobic amino acids which may be the same or different and are selected from the group consisting of Valine, Leucine, Isoleucine, Tyrosine, Phenylalanine and Tryptophan; p is an integer with a minimum value of 2.--

REMARKS